

Work Order ID 79534 - 2

\*79534\*

Page 1

January-27-12 10:01:28 AM

Item ID: D4491-3

Accept

\*N9000040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Hinge, Left Lower

Start Date: 27/01/2012 Start Qty: 3.00 *SP4* \*3\*

Cust Item ID:

Required Date: 03/02/2012 Req'd Qty: 3.00 \*3\*

Customer:

Reference:

Run Start \*NR1\*

Approvals: Process Plan: *MCJ* Date: *12/01/27* Tooling:

Date:

Stop \*NR2\*

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D4491

A

0.00

100

\*100\*

Bandsaw

Jeaspa Bandsaw

Memo

CUT BLANK 5.7" LONG

0.00

110

\*110\*

Purchasing

Purchasing

Memo

ISSUE P/O: *16016*  
TO ARCHUR PRECISION (GLOBUS)  
C OF C IS REQUIRED  
*cert*

0.00

0.00

120

\*120\*

QC

Quality Control

QC6- Inspect dimensions to drawing

Memo

0.00

0.00

*DAS 16*

*12/01/13*

*CL 12/01/27*

*12/01/27*

*(2)*

18  
16  
15

# Work Order ID 79534

\*79534\*

Page 2

January-27-12 10:01:28 AM

Item ID: D4491-3

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Hinge, Left Lower

Start Date: 27/01/2012 Start Qty: 3.00

\*3\*

Cust Item ID:

Required Date: 03/02/2012 Req'd Qty: 3.00

\*3\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID Tool # Plan Accept Reject Reject Insp.  
Code Qty Qty Number Stamp

200

Identify as per dwg & Stock Location: 111

0.00

\*200\*

Packaging

Memo

0.00

Packaging

1 SL 12/9/10

210

QC21- Final Inspection - Work Order Release

0.00

\*210\*

QC

Memo

0.00

Quality Control

13/11/14

13.11.14





Print

12/10/01:32 AM

Page 1

ID: 79534

D4491-3

Name: Hinge, Lef, Lower

\*79534\*

\*D4491-3\*

Start Date: 27/01/2012

Required Date: 03/02/2012

Start Qty: 3.00

Required Qty: 3.00

IPP REV:A NEW ISSUE 11-12-05 JLM VERIFIED BY:DD

Item ID/	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
13-3P*		Purchased	No				Each	2.0000	**	3			

1143/28 (2)

			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
13.500	Purchased	No	ST	2	
			77409	2	
4R3 500X03 500*				F	8.0000
" X 3.500"					1.44

\*\*

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT009	8	
120006	8	

1.50 12-01-22

12/01/23

DATE

D

1A

REV. A

SHEET 1 OF 6

SCALE

NTS

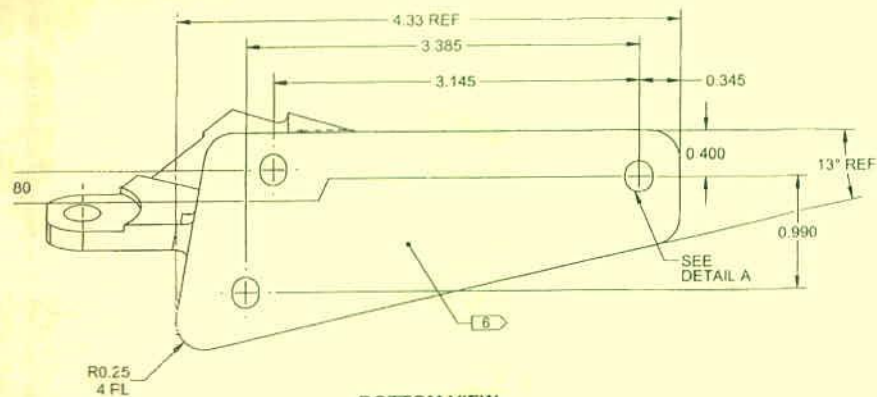
LTD

GROUP

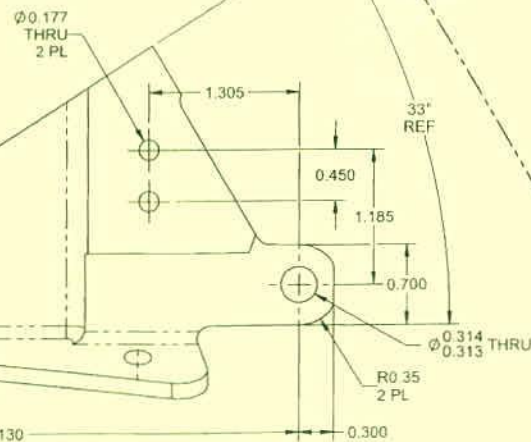
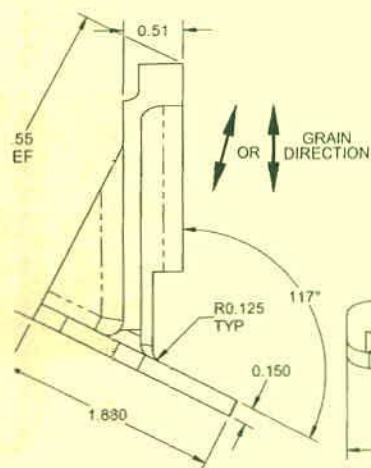




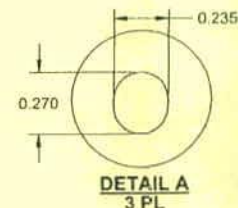
79534



**BOTTOM VIEW**



**VIEW A-A**



**DETAIL A**

ISI 303 SS BAR PER ASTM A582  
 IEF DART SPEC M303B OR  
 ISI 304/316 SS BAR OR PLATE  
 IEF ASTM A276 OR ASTM A240  
 IEF DART SPEC M304B

ES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
 ES UNLESS OTHERWISE NOTED  
 RP EDGES: 0.005 TO 0.010 MAX  
 ION. IDENTIFY PER C 1044 6.1  
 1 lbs  
 R DRAWING FILE "D4491-1-REVA STP"

**D4491-1 HINGE, LEFT-UPPER**

DESIGN	RP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RP		
CHECKED	AS	DRAWING NO D4491	REV A
MFG APPR	3/12	SHEET 2 OF 6	
APPROVED	3/12	TITLE	SCALE
DE APPR	3/12	DOOR HINGE SETS	NTS
DATE	12.01.23	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS UNCLASSIFIED AND NOT FOR DISTRIBUTION OUTSIDE THE DART AEROSPACE LTD FACILITY UNLESS OTHERWISE SPECIFIED BY DART AEROSPACE LTD	

RELEASE  
 2012-01-26

TAIL A  
 PL

RELEASE  
 -01-26  
 HP

DE LTD  
 CANADA

REV. A  
 SHEET 3 OF 6  
 SCALE  
 NTS

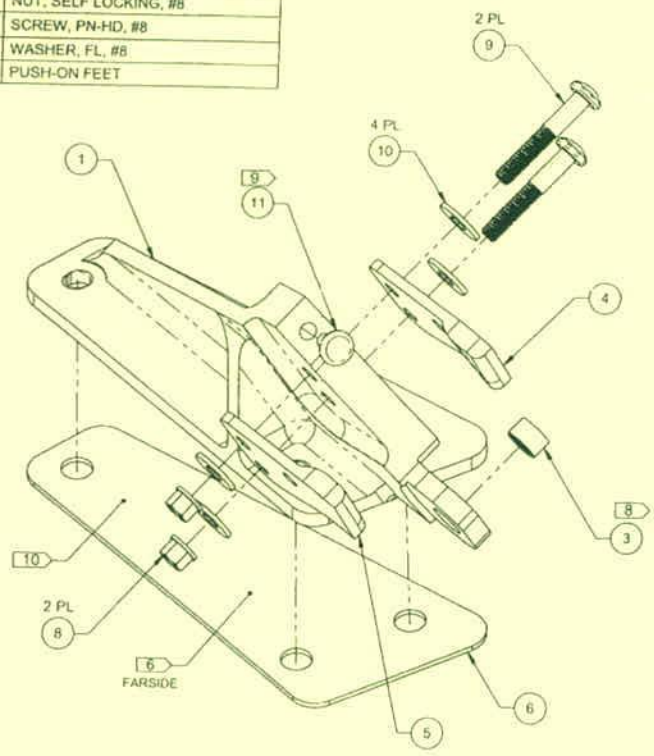
DART AEROSPACE LTD  
 10000 HWY 100, UNIT 100, HAWKESBURY, ONTARIO, CANADA  
 TEL: 519-882-1000 FAX: 519-882-1001



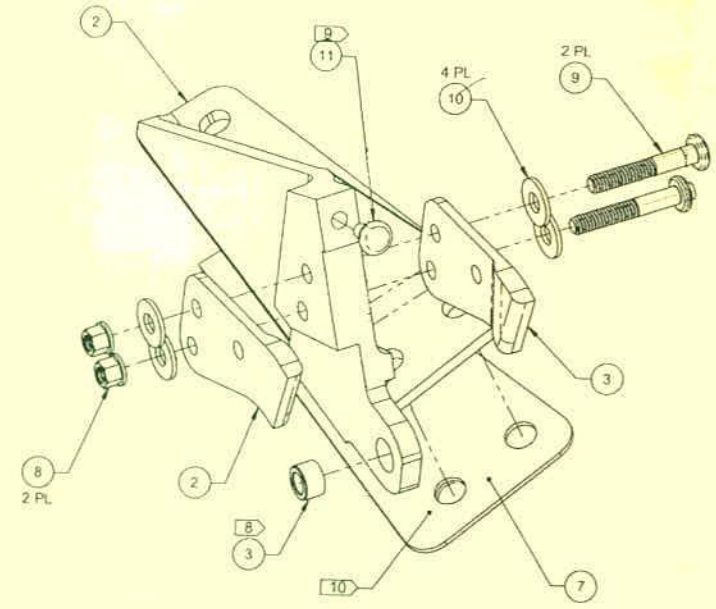


79534

ITEM	QTY -042	QTY -044	P/N	DESCRIPTION
	X		D4491-042	DOOR HINGE ASSY, RIGHT-UPPER
		X	D4491-044	DOOR HINGE ASSY, RIGHT-LOWER
1	1		D4491-2	HINGE, RIGHT-UPPER
2		1	D4491-4	HINGE, RIGHT-LOWER
3	1	1	D4492-1	BUSHING
4	1	1	D4493-1	HINGE FORK
5	1	1	D4493-2	HINGE FORK
6	1		D4520-1	HINGE SHIM
7		1	D4520-3	HINGE SHIM
8	2	2	MS21043-08	NUT, SELF LOCKING, #8
9	2	2	MS27039C0816	SCREW, PN-HD, #8
10	4	4	NAS1149CN832R	WASHER, FL, #8
11	1	1	POF-40022	PUSH-ON FEET



D4491-042 HINGE, RIGHT-UPPER



D4491-044 HINGE, RIGHT-LOWER

RELEASED  
2012-01-26

NOTES:

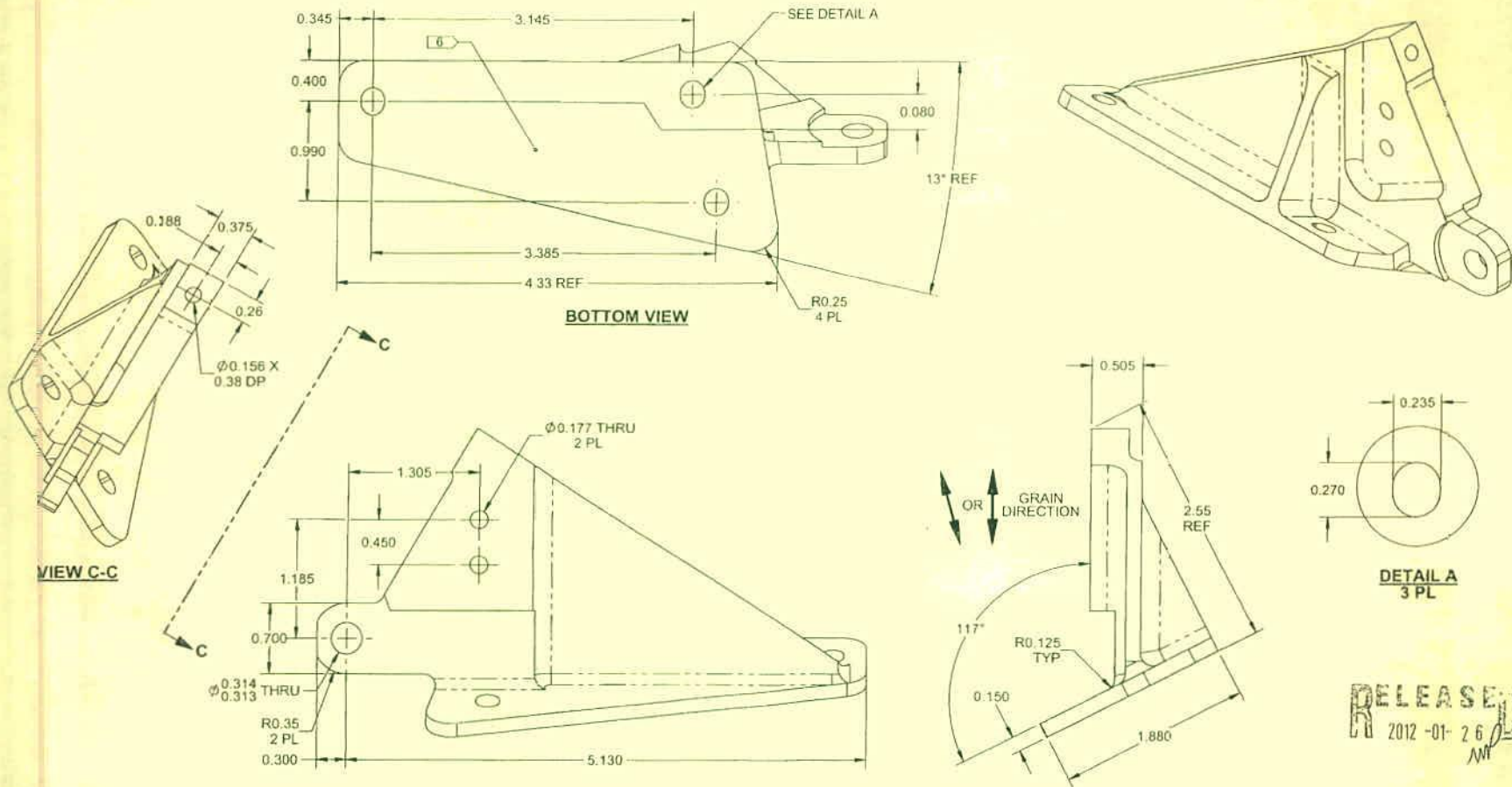
- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI044 6.1
- 7) WEIGHT: 0.3 lbs
- 8) PRESS-FIT BUSHING INTO ITEM 1/2
- 9) SECURE USING 1357 CON. ACT CEMENT (3M)
- 10) COAT MATING SURFACES WITH PROSEAL

DESIGN	RP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	REV. A
DRAWN	RP		
CHECKED	ASS	DRAWING NO. D4491	SHEET 4 OF 6
MFG. APPR		TITLE DOOR HINGE SETS	SCALE NTS
APPROVED		DATE 12.01.23	
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79534



- NOTES:
- 1) MATERIAL: AISI 303 SS BAR PER ASTM A582  
REF DART SPEC M303B OR  
AISI 304/316 SS BAR OR PLATE  
PER ASTM A276 OR ASTM A240  
REF DART SPEC M304B
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: IDENTIFY PER QSI044 ( 1
  - 7) WEIGHT: 0.61 lbs
  - 8) PROFILE PER DRAWING FILE "D4491-2-REV.A.STP"

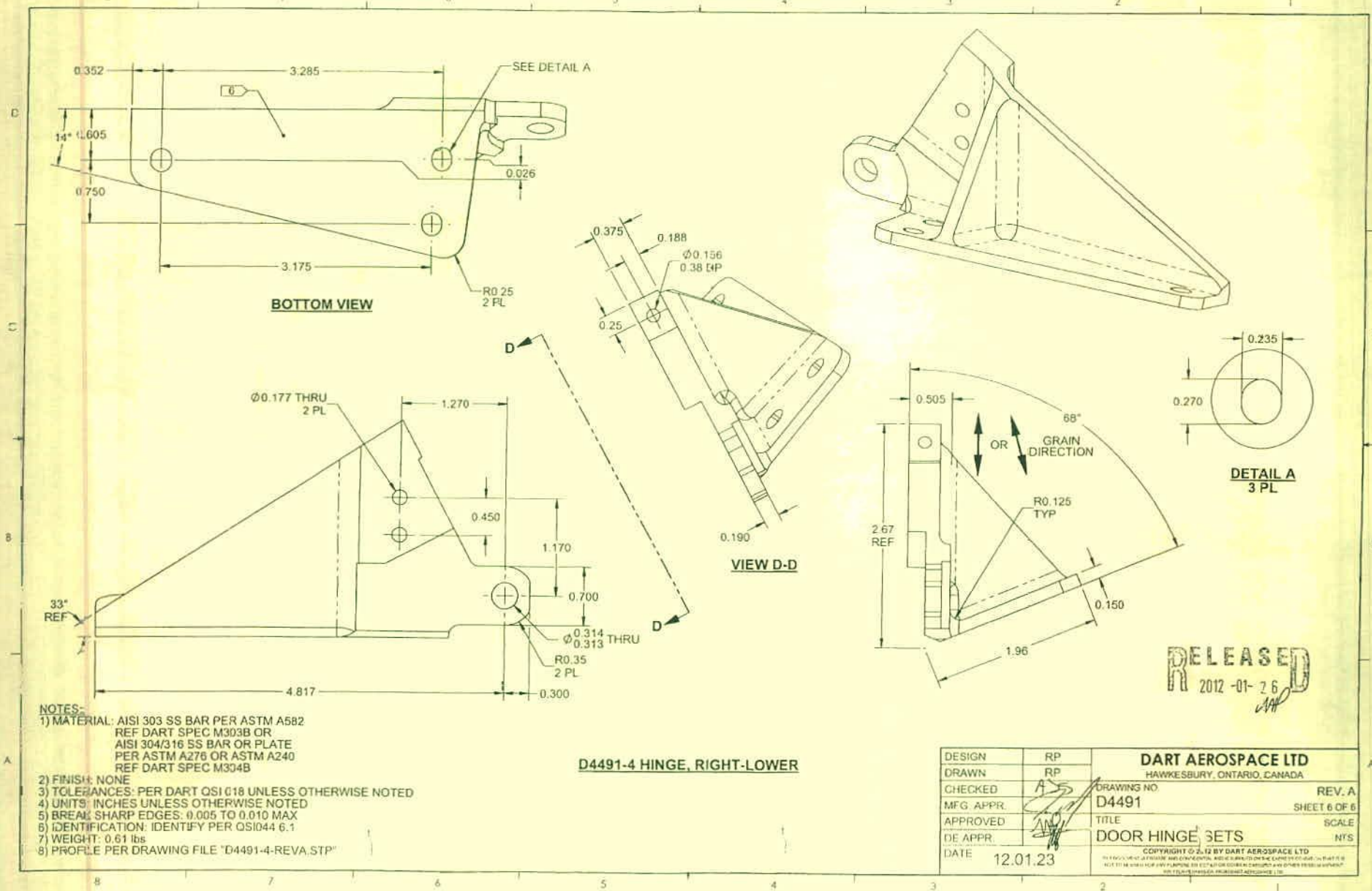
D4491-2 HINGE, RIGHT-UPPER

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DRAWN	RP		
CHECKED	ASS	DRAWING NO.	REV. A
MFG. APPR.		D4491	SHEET 5 OF 6
APPROVED		TITLE	SCALE:
DE APPR.		DOR HINGE SETS	NTS
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REF DART SPEC M303B OR  
AISI 304/316 SS BAR OR PLATE  
PER ASTM A276 OR ASTM A240  
REF DART SPEC M304B
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK: SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: IDENTIFY PER QSI044 6.1
  - 7) WEIGHT: 0.61 lbs
  - 8) PROFILE PER DRAWING FILE "D4491-4-REVA.STP"

DESIGN	RP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RP		
CHECKED	AS	DRAWING NO. <b>D4491</b>	REV. A
MFG. APPR.	AS	SHEET 6 OF 6	
APPROVED	AS	TITLE <b>DOOR HINGE SETS</b>	SCALE NTS
DE APPR.		COPYRIGHT © 2012 BY DART AEROSPACE LTD	
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1393 Major Road  
Orleans, Ontario  
K1E 1H3

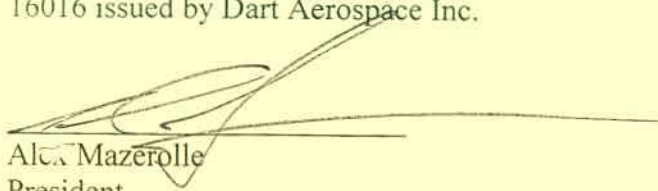
Telephone (613) 899-2405  
Fax (613) 226-1719

## Certificate of Compliance

To:  
Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury Ont.  
K6A 1K7

Po Number	Part Number	Quantities
16016	D4491-1	3
	D4491-2	3
	D4491-3	1
	D4491-4	2

It is hereby certified that all articles mentioned above are in conformance with the requirements, specification and drawings as listed on customer purchase order number, 16016 issued by Dart Aerospace Inc.



Alain Mazerolle  
President  
Archer Precision Inc.  
1393 Major Road,  
Orleans Ontario  
K1E 1H3





1393 Major Road  
Orleans, ON  
K1E 1H3

Phone # 613-899-2405

# Packing Slip

Date	Invoice #
3/26/2012	89

## Ship To

Main Finished Goods Location  
Dart Aerospace  
1270 Aberdeen Street  
Hawksbury, Ontario  
K6A 1K7

P.O. No.	Ship	Via	FOB	Project
16016	3/26/2012	FedEx	Archer	

Qty	Item Code	Description
3	Sales	D4491-1
3	Sales	D4491-2
1	Sales	D4491-3
2	Sales	D4491-4
		HST (ON) on sales





**From:** Alex Mazerolle <Alex@archerprecision.ca>  
**Sent:** Wednesday, April 25, 2012 8:30 AM  
**To:** Jean-Luc Menard  
**Subject:** Re: D4491's scrap parts

Good morning Jean-Luc,

Two of the hinges had an end mill that pulled out of its holder. The last hinge was scrapped because we lost the transmission on the machine and could not finish the part.

Alex Mazerolle  
President  
Archer Precision Inc.  
[Alex@archerprecision.ca](mailto:Alex@archerprecision.ca)  
613-899-2405

----- Original Message -----

**From:** Jean-Luc Menard  
**To:** Alex Mazerolle  
**Sent:** Monday, April 23, 2012 2:03 PM  
**Subject:** FW: D4491's scrap parts

---

**From:** Jean-Luc Menard [<mailto:jmenard@dartaero.com>]  
**Sent:** Monday, April 02, 2012 10:28 AM  
**To:** Alex Mazerolle  
**Cc:** Eric Downing ([edowning@dartaero.com](mailto:edowning@dartaero.com))  
**Subject:** D4491's scrap parts

Hi Alex,  
Could you send me an quick e-mail with what happened to the scrap hinges pls.  
QC is asking so we can attach the e-mail for their records.  
THX  
JL

**Jean-Luc Menard**  
*Production Engineering Coordinator*



DART AEROSPACE  
1270 Aberdeen Street  
Hawkesbury Ontario  
Canada K6A 1K7  
**Tel: (613) 632-5200 Ext 227**  
[jmenard@dartaero.com](mailto:jmenard@dartaero.com)



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1890

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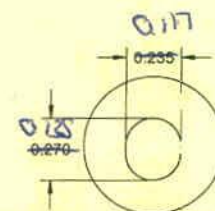
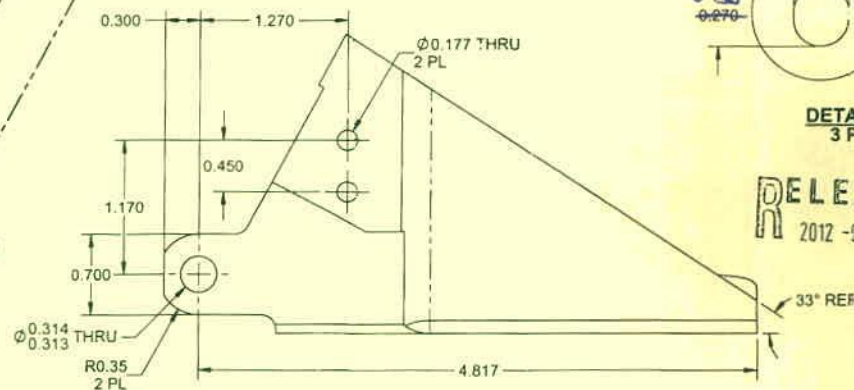
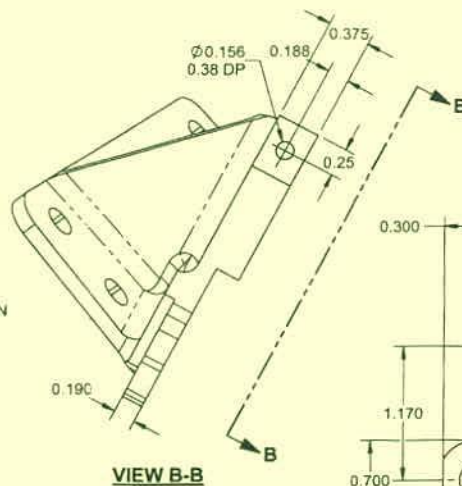
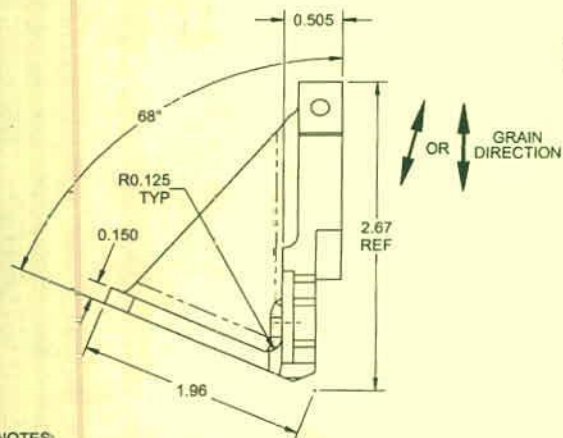
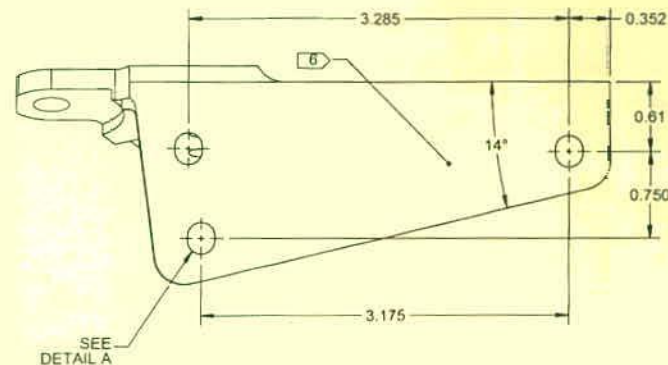
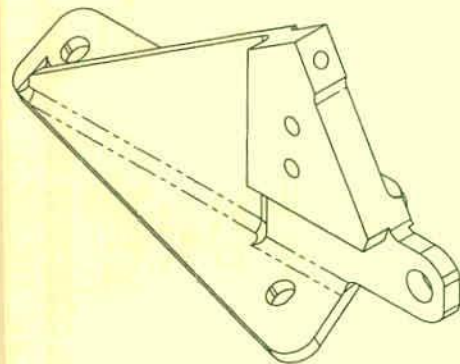
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DETAIL A  
3 PL

RELEASED  
2012-01-26  
MP

- NOTES:
- 1) MATERIAL: AISI 303 SS BAR PER ASTM A582  
REF DART SPEC M303B OR  
AISI 304/316 SS BAR OR PLATE  
PER ASTM A276 OR ASTM A240  
REF DART SPEC M304B
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: IDENTIFY PER QSI044 6.1
  - 7) WEIGHT: 0.61 lbs
  - 8) PROFILE PER DRAWING FILE "D4491-3-REVA.STP"

D4491-3 HINGE, LEFT-LOWER

DESIGN	RP	DART AEROSPACE LTD	
DRAWN	RP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	SS	DRAWING NO.	REV. A
MFG. APPR.	SS	D4491	SHEET 3 OF 8
APPROVED	SS	TITLE	SCALE
DE APPR.	SS	DOOR HINGE SETS	NTS
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DART AEROSPACE LTD		Work Order: 7534
Description: <u>Hang left lane</u>		Part Number: 4491-3
Inspection Dwg: 4491	Rev: A	Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.505	$\pm 0.010$	0.508	✓		✓	
<del>0.80</del>	<del><math>\pm 0.010</math></del>	<del></del>				
RO 125 Typ	$\pm 0.005$	RO 125				
0.150	$\pm 0.010$	0.153	✓		✓	
<del>1.96</del>	<del><math>\pm 0.030</math></del>	<del></del>				
2.67 Ref	$\pm 0.020$	2.677	✓		✓	
0.190	$\pm 0.010$	0.191	✓		✓	
0.25	$\pm 0.020$	0.255	✓		✓	
0.35	$\pm 0.010$	0.371	✓		✓	
0.188	$\pm 0.010$	0.192	✓		✓	
0.156	$\pm 0.010$	0.154	✓		✓	
0.38 BP	$\pm 0.030$	0.389	✓		✓	
3.285	$\pm 0.010$	3.288	✓		✓	
0.352	$\pm 0.010$	0.355	✓		✓	
0.61	$\pm 0.030$	0.608	✓		✓	
0.750	$\pm 0.010$	0.754	✓		✓	
3.175	$\pm 0.010$	3.174	✓		✓	
0.340	$\pm 0.010$	0.302	✓		✓	
1.270	$\pm 0.010$	1.273	✓		✓	
0.177	$\pm 0.010$	0.179	✓		✓	
4.817	$\pm 0.010$	4.820	✓		✓	
0.330314	$\pm 0.010$	0.313	✓		✓	
<del>RO 35</del>	<del><math>\pm 0.005</math></del>	<del>RO 35</del>				

Measured by: <u>Smb</u>	Audited by: <u>DAS</u>	Preliminary Approval:
Date: <u>12-8-13</u>	Date: <u>12/10/13</u>	Date:

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	



25.



